Attorney's Docket No. 042933/271454 PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.:	10/797,529	Confirmation No.: 4521
Applicant(s):	Poyhonen et al.	
Filed:	March 10, 2004	
Art Unit:	2416	
Examiner:	Tri H. Phan	
Title:	SYSTEM AND METHOD FOR ESTABLISHING INTERNET PROTOCOL CONNECTION WITH A TERMINATING NETWORK NODE	

Customer No.: 00826

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF TRANSMITTAL
(PATENT APPLICATION – 37 C.F.R. § 41.37)

1. Transmitted herewith is the APPEAL BRIEF in this application, with respect to the Notice of Appeal filed on January 6, 2009.

2. ☐ Applicant claims small entity status.

3. Pursuant to 37 C.F.R. § 41.20(b)(2), the fee for filing the Appeal Brief is:
   ☐ small entity $270.00
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☒ Any additional fee or refund may be charged to Deposit Account 16-0605.

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APPEAL BRIEF UNDER 37 CFR § 41.37

This Appeal Brief is filed pursuant to the "Notice of Appeal to the Board of Patent Appeals and Interferences," filed January 6, 2009.

1. ***Real Party in Interest.***

The real party in interest in this appeal is Nokia Corporation, the assignee of the above-referenced patent application.

2. ***Related Appeals and Interferences.***

There are no related appeals and/or interferences involving this application or its subject matter.

3. ***Status of Claims.***

All of the pending claims, namely Claims 1-59, stand rejected and are the subject of the present appeal.

4. ***Status of Amendments.***

There are no unentered amendments in this application.

5. ***Summary of Claimed Subject Matter.***

The claimed invention will now be summarized with references to passages of the specification and drawings. It should be understood, however, that the references are provided solely for explanatory purposes, and should not otherwise in and of themselves be taken to limit the scope of the claimed invention.

Relative to FIG. 1, for example, independent Claim 1 recites a system **10** including an originating node **20** configured to initiate communication with a terminating node **36**, and an intermediate node **22** located between the originating node and the terminating node. As recited, the originating node is configured to initiate communication with the terminating node in a manner based upon at least one parameter for communication with at least one of the intermediate node or the terminating node. Pat. Appl., page 16, line 26 – page 20, line 7. The originating node is configured to initiate communication by (a) requesting communication with the terminating node via the intermediate node, or (b) notifying the terminating node of incoming data independent of the intermediate node. *Id.*; and see *id.* at FIGS. 4A-4C. The originating node or the intermediate node is configured to notify the terminating node of incoming data when the originating node initiates communication in accordance with aforementioned (a) (i.e., by requesting communication with the terminating node via the intermediate node). *Id.* The terminating node, upon being notified of incoming data, is configured to register with the intermediate node to thereby enable Internet Protocol (IP) communication between the originating node and the terminating node via the intermediate node. *Id.* at page 20, line 8 – page 22, line 12.

Claim 2 (depending from independent Claim 1) recites that the originating node is configured to notify the terminating node of incoming data further in accordance with a non-IP-based communication technique when the originating node initiates communication in accordance with aforementioned (b) (i.e., by notifying the terminating node of incoming data). Pat. Appl., page 19, lines 1-23. The originating node or the intermediate node is configured to

notify the terminating node of incoming data further in accordance with a non-IP-based communication technique when the originating node initiates communication in accordance with aforementioned (a) (i.e., by requesting communication with the terminating node via the intermediate node). *Id.*

Claim 6 (depending from independent Claim 1) recites that the originating node is configured to request communication with the terminating node via the intermediate node sending a domain name service (DNS) query to at least one of a plurality of DNS servers to thereby trigger the DNS server(s) to communicate with the intermediate node to request communication with the terminating node. Pat. Appl., page 17, lines 3-8.

According to Claim 15 (depending from independent Claim 1), the system further includes at least one of a network address translator (NAT) or a firewall (FW) **28** located between the intermediate node and the terminating node. As recited, the originating node or the intermediate node is configured to communicate with the at least one of the NAT or FW to thereby trigger the at least one of the NAT or FW to notify the terminating node of incoming data. Pat. Appl., page 19, line 24 – page 20, line 7.

Dependent Claim 16 (depending from independent Claim 15) recites that the originating node or the intermediate node is configured to communicate with the at least one of the NAT or FW to thereby enable the at least one of the NAT or FW to communicate with a network gateway support node to thereby trigger the network gateway support node to notify the terminating node of incoming data. Pat. Appl., page 20, lines 5-7.

Independent Claim 18 recites a method including receiving a notification of incoming data at a terminating node **36** from an originating node **20** or an intermediate node **22** located between the originating node and the terminating node. Pat. Appl., page 16, line 26 – page 20, line 7; and FIGS. 4A-4C. As also recited, the method includes registering the terminating node with the intermediate node in response to receiving the notification at the terminating node to thereby enable Internet Protocol (IP) communication between the originating node and the terminating node via the intermediate node. *Id.* at page 20, line 8 – page 22, line 12.

Claim 19 (depending from independent Claim 18) recites that notifying the terminating node includes notifying the terminating node of incoming data further in accordance with a non-IP-based communication technique. Pat. Appl., page 19, lines 1-23.

According to Claim 23 (depending from independent Claim 18), the method further includes requesting communication with the terminating node from the originating node via the intermediate node by sending a domain name service (DNS) query to at least one of a plurality of DNS servers. Pat. Appl., page 17, lines 3-8. As recited, this query is sent to thereby trigger the DNS server(s) to communicate with the intermediate node to thereby enable the intermediate node to notify the terminating node of incoming data. *Id.*

Claim 32 (depending from independent Claim 18) recites that receiving a notification includes receiving a notification from at least one of a network address translator (NAT) or a firewall (FW) **28** located between the intermediate node and the terminating node. And as also recited, receiving a notification includes receiving a notification in response to the at least one of the NAT or FW being triggered by the originating node or the intermediate node to notify the terminating node of incoming data. Pat. Appl., page 19, line 24 – page 20, line 7.

Dependent Claim 33 (depending from independent Claim 32) recites that receiving a notification includes receiving a notification from a network gateway support node in response to the network gateway support node being triggered by at least one of the NAT or FW to notify the terminating node of incoming data. Pat. Appl., page 20, lines 5-7.

Independent Claim 35 recites an apparatus **36** including a controller **42** configured to receive a notification of incoming data from an originating node **20** or an intermediate node **22** located between the originating node and the apparatus. Pat. Appl., page 16, line 26 – page 20, line 7; and FIGS. 4A-4C. As recited, the controller is also configured to register the apparatus with the intermediate node in response to receiving the notification to thereby enable Internet Protocol (IP) communication between the originating node and the apparatus via the intermediate node. *Id.* at page 20, line 8 – page 22, line 12.

Claim 36 (depending from independent Claim 35) recites that the controller is configured to receive the notification further in accordance with a non-IP-based communication technique. Pat. Appl., page 19, lines 1-23.

Claim 40 (depending from independent Claim 35) recites that the controller is configured to receive the notification in response to the originating node requesting communication with the apparatus via the intermediate node by sending a domain name service (DNS) query to at least one of a plurality of DNS servers. Pat. Appl., page 17, lines 3-8. As recited, this query is sent to thereby trigger the DNS server(s) to communicate with the intermediate node to thereby enable the intermediate node to send the notification to the apparatus. *Id.*

According to Claim 49 (depending from independent Claim 35), the controller is configured to receive the notification from at least one of a network address translator (NAT) or a firewall (FW) **28** located between the intermediate node and the apparatus. As recited, the controller is configured to receive the notification in response to the at least one of the NAT or FW being triggered by the originating node or the intermediate node to notify the apparatus of incoming data. Pat. Appl., page 19, line 24 – page 20, line 7.

Dependent Claim 50 (depending from independent Claim 49) recites that the controller is configured to receive the notification from a network gateway support node in response to the network gateway support node being triggered by at least one of the NAT or FW to notify the apparatus of incoming data. Pat. Appl., page 20, lines 5-7.

Independent Claim 52 recites a system including a network address translator (NAT) **28** located between an originating node **20** and a terminating node **36**. As recited, the NAT is configured to receive a communication request from a network node, and in response to the connection request, notify the terminating node of incoming data. Pat. Appl., page 19, line 24 – page 20, line 7. This notification is sent to thereby enable the terminating node to register with an intermediate node **22** located between the originating node and the NAT to thereby enable Internet Protocol (IP) communication between the originating node and the terminating node via the intermediate node. *Id.* at page 20, line 8 – page 22, line 12.

Independent Claim 59 recites an apparatus **36** including a receiving means for receiving a notification of incoming data from an originating node **20** or an intermediate node **22** located between the originating node and the apparatus. Pat. Appl., page 16, line 26 – page 20, line 7; and FIGS. 4A-4C. And as also recited, the apparatus includes a registering means for registering the apparatus with the intermediate node in response to the receiving means receiving the

notification to thereby enable Internet Protocol (IP) communication between the originating node and the apparatus via the intermediate node. *Id.* at page 20, line 8 – page 22, line 12.

Appellants further note that independent Claim 59 provides an apparatus comprising a number of means-plus-function elements as permitted by 35 U.S.C. § 112, sixth paragraph. As explained on pages 12 and 13 of the present application, the steps or functions performed or capable of being performed by one or more entities or apparatuses of the system may be carried out by a controller or other processor, which may operate alone or under direction of one or more software applications, instructions or the like, which may be stored in volatile and/or non-volatile memory of the apparatus.

6. ***Grounds of Rejection to be Reviewed on Appeal.***

Pending Claims 1, 2, 4-6, 11-13, 15-17, 18, 29, 21-23, 28-30, 32-34, 35, 36, 38-40, 45-47, 49-51, 52-54, 56, 58 and 59 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,690,407 to Parker et al. And the remaining claims, namely Claims 3, 7-10, 14, 20, 24-27, 31, 37, 41-44, 48, 55 and 57, stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Parker, in view of U.S. Patent No. 6,910,074 to Amin et al. All of the aforementioned claim objections and rejections are the subject of this appeal.

7. ***Argument.***

As indicated above, Claims 1, 2, 4-6, 11-13, 14-17, 18, 29, 21-23, 28-30, 32-34, 35, 36, 38-40, 45-47, 49-51, 52-54, 56, 58 and 59 stand rejected being anticipated by Parker; and the remaining claims, namely Claims 3, 7-10, 14, 20, 24-27, 31, 37, 41-44, 48, 55 and 57, stand rejected as being unpatentable over Parker, in view of Amin. As explained below, Appellants submit that the claimed invention is patentably distinct from Parker and Amin, taken individually or in any proper combination. In view of the remarks presented herein, Appellants respectfully request reconsideration of the application and reversal of the rejection of all of the pending claims thereof.

A. Claims 1, 2, 4-6, 11-13, 15-17, 18, 29, 21-23, 28-30, 32-34, 35, 36, 38-40, 45-47, 49-51, 52-54, 56, 58 and 59 are Patentable

According to one aspect of the present invention, as reflected by independent Claim 1, a system is provided that includes an originating node configured to initiate communication with a terminating node, and an intermediate node located between the originating node and the terminating node. As recited, the originating node is configured to initiate communication with the terminating node in a manner based upon at least one parameter for communication with at least one of the intermediate node or the terminating node. The originating node is configured to initiate communication by (a) requesting communication with the terminating node via the intermediate node, or (b) notifying the terminating node of incoming data independent of the intermediate node. The originating node or the intermediate node is configured to notify the terminating node of incoming data when the originating node initiates communication in accordance with aforementioned (a) (i.e., by requesting communication with the terminating node via the intermediate node). The terminating node, upon being notified of incoming data, is configured to register with the intermediate node to thereby enable Internet Protocol (IP) communication between the originating node and the terminating node via the intermediate node.

In contrast to independent Claim 1, Parker (as well as Amin) does not teach or suggest a system for establishing an IP connection with a terminating node, whereby the terminating node, upon being notified of incoming data (independent of an intermediate node), is configured to register with the intermediate node to thereby enable Internet Protocol (IP) communication between the originating node and the terminating node via the intermediate node. Briefly, Parker discloses a combined telephonic/computerized on-demand ordering system whereby a central server may establish a data call between the computers of a first user (calling party – alleged originating node) and a second user (called party – alleged terminating node) as telephones of the first and second users carry out a telephone call. Parker discloses that its central server (alleged intermediate node) may register a second user (called party) and include a database of registered second users including their respective telephone numbers (of their telephones) and IP addresses (of their computers). In this regard, one may argue that Parker discloses registering a second user (alleged terminating node) with the central server (alleged intermediate node).

Even given the aforementioned interpretation, Parker still does not teach or suggest that its second user (called party) is notified of incoming data independent of the central server (alleged intermediate node), and then registers with the central server, similar to the terminating node of independent Claim 1. That is, Parker still does not teach or suggest that its second user (called party) registers with the central server upon being notified of incoming data (independent of the central server), as recited by independent Claim 1. Rather, interactions with a second user (called party) according to Parker presuppose registration of that called party with the central server. Parker, col. 4, ll. 47-50 ("When a user is 'on-line' ..., their computer sends a registration message to the central server 13 to notify it that the user is available."). Independent Claim 1, on the other hand, recites notifying the terminating node of incoming data, and upon that notification, registering the terminating node to enable IP communication.

1. Interpretation of Parker Proffered by Examiner in Final Official Action

In response to the foregoing, the Examiner in the final Official Action stated as follows:

> *... Parker discloses wherein the user, e.g. "terminating node", browses by commercial and private entities for exchange data over the Internet for its current session, e.g. "upon being notified of incoming data", is configured to register with the DNS, e.g. "intermediate node", to receive a temporarily assigned IP address for exchanging data with server over the Internet as specified in col. 2, lines 20-32; with secure band billing processes as disclosed in col. 4, lines 42-53.*

Final Official Action of Aug. 27, 2008, page 30. Appellants respectfully disagree with this interpretation.

In the preceding interpretation, the Examiner takes the position that Parker discloses a user browsing hosted content (compared to notifying of incoming data), and then registers with a DNS to receive a temporarily-assigned IP address (compared to registering with the intermediate node upon being notified of incoming data). Initially, Appellants note that Parker does not in fact disclose a user registering with a DNS to receive a temporary IP address, but instead discloses that a user's Internet service provider assigns a temporary IP address. As disclosed by Parker and as is well known, a DNS server translates IP addresses to more-convenient logical names. A network address translator (NAT) of an Internet service provider assigns temporary IP addresses to users of the respective service provider.

In line with Parker's description of the DNS system, a user is assigned a temporary IP address by the user's Internet service provider before the user may browse hosted content, the assigned IP address being required for the host (commercial or private entity) to return its content to the user. Thus, instead of a user browsing hosted content before receiving a temporarily-assigned IP address (compared to receiving notification of incoming data and thereupon registering with the intermediate node – as per independent Claim 1), in line with Parker, the user receives the temporarily-assigned IP address before browsing hosted content. This is in relation to registration with the intermediate node to thereby enable IP communication, as also per independent Claim 1. But instead of the user being notified of incoming data before registering to enable IP communication, as per independent Claim 1, Parker discloses registering to enable IP communication to receive incoming data (browsing hosted content).

2. Interpretation of Parker Proffered by Examiner in Advisory Action

Most recently, in response to the foregoing, the Examiner in an Advisory Action stated:

> *... Parker et al. (U.S. 6,690,407) discloses a combined telephonic/computerized on-demand ordering system employed the computer network communication session that establishes in response to a telephone call made from the user/requestor via the central server (see Abstract); wherein, upon the called party is alert for requesting to establish connection through voice call ("notification of incoming data"; see col. 4, lines 22-32); and in order to establish communication session between users via central server and for security and/or billing purpose, users have to send registration message to central server, e.g. "register with the intermediate node", to notify that the user is available, for establishing connection/services over Internet, e.g. "enable IP communication" (see col. 4, lines 33-67; and since central server database maintains 'only registered users' as specified in col. 3, lines 16-30; col. 4, lines 41-67). Therefore, the examiner concludes that Parker teaches the arguable features.*

Advisory Action of Dec. 12, 2008, Continuation Sheet.

As disclosed by Parker, a voice call is established between a calling and a called party, and establishment of the voice call provides a way to alert the called party of a request to establish a computer connection between computers of the calling and called party. According to the Examiner's aforementioned interpretation of Parker, this alert corresponds to notifying a terminating node of incoming data independent of an intermediate node (alleged central server of

Parker), as per independent Claim 1. But for Parker to anticipate independent Claim 1 under this interpretation, Parker must explicitly or inherently disclose that upon being alerted of a request to establish a computer connection (alleged notification of incoming data), the called party's computer (alleged terminating node) is configured to register with the central server (alleged intermediate node) to enable IP communication between the calling party's computer (alleged originating node) and the called party's computer via the central server. *See* MPEP § 2131 (explaining that anticipation of a claim requires that a single cited reference explicitly or inherently – i.e., necessarily – disclose each and every element of the claimed invention). Appellants respectfully submit that this is not the case.

More particularly, Parker does not in fact explicitly or inherently disclose that upon being alerted of a request for a data connection from the calling party's computer (alleged notification of incoming data), the called party's computer registers with the central server to enable IP communication, similar to the terminating node of independent Claim 1. Rather, Parker discloses that the called party registers with the central server before being alerted of a request for a data connection. As disclosed by Parker, when a user is on-line, their computer registers with the central server to not only notify the central server that the user is available, but to also permit the central server to determine the current IP address at which the user resides for its current connection session. Parker, col. 4, ll. 47-53. Then, when a calling party (first user) dials a called party's (second user's) telephone number – i.e., target number – to establish a voice telephone call, the central server uses the target number to identify the IP address of the called party's computer to initiate a connection with that computer. *Id.*, col. 5, ll. 1-12. As clearly disclosed by Parker, this alert (alleged notification of incoming data) is sent to the IP address of the called party's computer, which IP address the central server learned during the called party's prior registration with the central server. The alert is not sent to the called party's computer such that the computer, upon being alerted, registers with the central server, similar to the claimed invention. And moreover, the alert is sent to the called party's computer from the central server, and is not sent independent of the central server (alleged intermediate node), similar to the notification of the claimed invention.

Appellants therefore respectfully submits that independent Claim 1, and by dependency Claims 2-17, is patentably distinct from Parker. Appellants also respectfully submit that independent Claims 18, 35, 52 and 59 recite subject matter similar to those elements of independent Claim 1 discussed above, including the aforementioned registering a terminating node or apparatus upon or in response to receiving a notification to thereby enable IP communication. As such, Appellants respectfully submit that independent Claims 18, 35, 52 and 59, and by dependency Claims 19-34, 36-51 and 53-58, are also patentably distinct from Parker for at least the reasons given above with respect to independent Claim 1.

3. Dependent Claims

In addition to the above reasons, Appellants respectfully submit that various ones of dependent Claims 2, 4-6, 11-13, 14-17, 19, 21-23, 28-30, 32-34, 36, 38-40, 45-47, 49-51, 53, 54, 56 and 58 recite features further patentably distinct from Parker. Examples of a number of these features are explained below.

a) Dependent Claims 2, 19 and 36

Dependent Claim 2 (and similarly dependent Claims 19 and 36) recites notifying the terminating node of incoming data further in accordance with a non-IP-based communication technique, which is also not taught or suggested by Parker. Embodiments of the claimed invention permit a non-IP-based notification to the terminating node, which upon being notified, registers with the intermediate node, as per dependent Claim 2 – read in context of its dependence on independent Claim 1. Parker, on the other hand, does not teach or suggest a notification of incoming data upon which any terminating node registers with an intermediate node, much less a non-IP-based notification.

For allegedly disclosing the feature of dependent Claim 2, the Examiner has cited FIG. 4 (computers 10 and 11), as well as column 7, lines 5-11, of Parker for disclosing "direct packet exchange for non-IP based." Appellants note that just as with the other figures of Parker, FIG. 4 is also premised on IP communication between computers 10 and 11. In FIG. 4, the central server notifies computers 10 and 11 of the other's IP address, and from this exchange of IP

addresses, the computers may communicate with one another without the central server. Even in this instance, however, Parker does not disclose a non-IP-based notification upon which either of the computers registers with an intermediate node, similar to dependent Claim 2.

Parker does at column 7, lines 5-11 refer to delivery of a video/audio program over a non-Internet connection, such as a cable television connection. Even considering this disclosure, however, nowhere does Parker teach or suggest that this delivery of a video/audio program is a non-IP-based notification upon which the receiving node registers with an intermediate node to enable IP communication, similar to dependent Claim 2.

b) Dependent Claims 6, 23 and 40

Dependent Claim 6 (and similarly Claims 23 and 40) recites that communication is requested with the terminating node by sending a domain name service (DNS) query to a DNS server to trigger the DNS server to communicate with the intermediate node to request communication with the terminating node, which is also not taught or suggested by Parker. For this feature, the Examiner has cited column 4, lines 5-19 of Parker for disclosing use of DNS servers. As disclosed by Parker, however, a DNS server may resolve a logical name of its central server (e.g., www.sprint.exchange.com) with a fixed IP address of the central server. This translation between logical names and IP addresses, however, does not explicitly or inherently correspond to a triggering of a DNS server to communicate with an intermediate node (allegedly Parker's central server) to request communication with a terminating node, similar to dependent Claim 6. Parker explicitly discloses that its computers (alleged originating and terminating nodes) are not listed with its DNS server, but does not disclose that its DNS server is triggered by a DNS query to communicate with its central server to request communication with a non-DNS-listed computer, similar to dependent Claim 6.

c) Dependent Claims 15, 16, 32, 33, 49 and 50

Dependent Claim 15 (and similarly dependent Claims 32 and 49), and by further dependency Claim 16 (and similarly dependent Claims 33 and 50) recites communicating with a network address translator (NAT) and/or firewall (FW) to trigger the NAT/FW to notify the

terminating node of incoming data, which is also not taught or suggested by Parker. For allegedly disclosing the feature of dependent Claim 15, the Examiner has cited column 15, lines 29-52 of Parker for disclosing "NAT and FW at the intermediate node and terminating node." In the cited passage, Parker does disclose an embodiment whereby its endpoints (computers 10 and 11) communicate across a NAT firewall. Even still, however, Parker does not explicitly or inherently disclose communicating with a NAT firewall to trigger the NAT firewall to notify a computer (alleged terminating node) of incoming data, upon which the respective computer registers with an intermediate node, similar to dependent Claim 15 – read in context of its dependence on independent Claim 1.

Further, as more particularly recited by dependent Claim 16 (and similarly dependent Claims 33 and 50), Parker does not teach or suggest a NAT/FW communicating with a gateway support node to trigger the gateway support node to notify the terminating node of incoming data. In fact, other than referring to use of a NAT firewall, Parker does not disclose any particular functionality of its NAT firewall, mush less any functionality corresponding to that of dependent Claims 15, 16, 32, 33, 49 and 50.

B. Claims 3, 7-10, 14, 20, 24-27, 31, 37, 41-44, 48, 55 and 57 are Patentable

Pending Claims 3, 7-10, 14, 20, 24-27, 31, 37, 41-44, 48, 55 and 57 stand rejected as being unpatentable over Parker, in view of U.S. Patent No. 6,910,074 to Amin. As explained above, independent Claims 1, 18, 35, 52 and 59, and by dependency Claims 2-17, 19-34, 36-51 and 53-58, are patentably distinct from Parker. Appellants respectfully submit that Amin does not cure the deficiencies of Parker. That is, even considering Amin, neither Parker nor Amin, taken individually or in any proper combination, teach or suggest the aforementioned registering a terminating node or apparatus upon or in response to receiving a notification to thereby enable IP communication, as per independent Claims 1, 18, 35, 52 and 59. Appellants therefore respectfully submit that independent Claims 1, 18, 35, 52 and 59, and by dependency Claims 2-17, 19-34, 36-51 and 53-58, are patentably distinct from Parker, in view of Amin.

Appellants further note that even if one could argue (albeit incorrectly) that Parker and Amin did disclose individual elements of the claimed invention, Appellants respectfully submit

that the Examiner has not provided a sufficient reasoning for their combination to teach the claimed invention. Appellants acknowledge the Supreme Court's recent decision in which the Court rejected a rigid application of the "teaching, suggestion or motivation" (TSM) test. *KSR Int'l. Co. v. Teleflex, Inc.*, 127 S.Ct. 1727, 82 USPQ2d (BNA) 1385 (2007). Nonetheless, in *KSR Int'l. Co.*, the Court did state that obviousness often requires determining whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue, and that to facilitate review, this analysis should be made explicit. *See KSR Int'l. Co.*, 127 S.Ct. at 1740–41, 82 USPQ2d (BNA) at 1396. Even further, the Court noted that "[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *Id.*, 127 S.Ct. at 1740-41, 82 USPQ2d (BNA) at 1396, *citing In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d (BNA) 1329 (Fed. Cir. 2006) (emphasis added).

As clearly explained by the Supreme Court in *KSR Int' l. Co.*, then, any finding of obviousness should be based on an apparent reason to combine the prior art, and must be supported by more than mere conclusory statements. In the instant case, the Official Action generally attempts to support the alleged combination of Parker and Amin by merely, and circularly, asserting that one skilled in the art would have been led to the combination because of the combination itself. With respect to the rejection of dependent Claim 3, for example, the Official Action alleges that one would have been led to combine SMS or multimedia service of Amin with the telecommunications over IP of Parker to provide SMS or multimedia service through the telecommunications network. *See* Official Action of Aug. 27, 2008, page 16. Other than concluding that the resulting combination would lead one skilled in the art to the combination, the Official Action does not provide any articulated reasoning with rational underpinning to support the particular modification of Parker to include the alleged feature of Amin. And even further, the Official Action fails to allege any particular manner of combining Parker and Amin that would result in the claimed invention.

8. ***Claims Appendix.***

The claims subject to this appeal are as follows:

1. (Previously Presented) A system comprising:

an originating node configured to initiate communication with a terminating node; and

an intermediate node located between the originating node and the terminating node,

wherein the originating node is configured to initiate communication with the terminating node in a manner based upon at least one parameter for communication with at least one of the intermediate node or the terminating node, wherein the originating node is configured to initiate communication by requesting communication with the terminating node via the intermediate node, or notifying the terminating node of incoming data independent of the intermediate node, wherein the originating node or the intermediate node is configured to notify the terminating node of incoming data when the originating node initiates communication by requesting communication with the terminating node via the intermediate node, and wherein the terminating node, upon being notified of incoming data, is configured to register with the intermediate node to thereby enable Internet Protocol (IP) communication between the originating node and the terminating node via the intermediate node.

2. (Previously Presented) A system according to Claim 1, wherein the originating node is configured to notify the terminating node of incoming data further in accordance with a non-IP-based communication technique when the originating node initiates communication by notifying the terminating node of incoming data, and wherein the originating node or the intermediate node is configured to notify the terminating node of incoming data further in accordance with a non-IP-based communication technique when the originating node initiates communication by requesting communication with the terminating node via the intermediate node.

3. (Previously Presented) system according to Claim 2, wherein non-IP based communication comprises at least one of oral communication, text messaging, radio frequency

(RF) communication, short messaging service (SMS) communication, multimedia messaging service (MMS) communication, or instant messaging.

4. (Previously Presented) A system according to Claim 1, wherein the originating node is configured to notify the terminating node of incoming data further in accordance with at least one wireless communication technique when the originating node initiates communication by notifying the terminating node of incoming data, and wherein the originating node or the intermediate node is configured to notify the terminating node of incoming data further in accordance with the at least one wireless communication technique when the originating node initiates communication by requesting communication with the terminating node via the intermediate node.

5. (Previously Presented) A system according to Claim 1, wherein the originating node is configured to initiate communication, and thereafter communicate, with the terminating node in accordance with a plurality of different communication techniques.

6. (Previously Presented) A system according to Claim 1, wherein the originating node is configured to request communication with the terminating node via the intermediate node sending a domain name service (DNS) query to at least one of a plurality of DNS servers to thereby trigger the at least one of a plurality of DNS servers to communicate with the intermediate node to request communication with the terminating node.

7. (Previously Presented) A system according to Claim 6, wherein the originating node is configured to send the DNS query to a first DNS server, wherein a second DNS server communicates with the intermediate node to request communication with the terminating node, and wherein the second DNS server comprises the first DNS server or a DNS server different from the first DNS server.

8. (Previously Presented) A system according to Claim 1, wherein the intermediate node is configured to establish a tunnel with the terminating node in response to the terminating node registering with the intermediate node,

and wherein the originating node is configured to communicate with the terminating node at least partially via the tunnel.

9. (Previously Presented) A system according to Claim 8, wherein the intermediate node is further configured to assign a public IP address to the terminating node,

and wherein the originating node is configured to communicate with the terminating node by sending data based upon the public IP address of the terminating node assigned by the intermediate node.

10. (Previously Presented) A system according to Claim 8, wherein the intermediate node is configured to establish the tunnel based upon a registration message from the terminating node via at least one of a network address translator (NAT) or a firewall (FW) located between the intermediate node and the terminating node,

and wherein the originating node is configured to communicate with the terminating node at least partially via the tunnel in a manner independent of the at least one of the NAT or the FW.

11. (Previously Presented) A system according to Claim 1, wherein the terminating node is configured to register with the intermediate node to thereby enable the intermediate node to create a registration entry that includes a public IP address assigned to the terminating node,

and wherein the originating node is configured to communicate with the terminating node to thereby enable the intermediate node to operate as a proxy based upon the registration entry.

12. (Previously Presented) A system according to Claim 11, wherein the public IP address assigned to the terminating node comprises a public IP address assigned to the terminating node by a network address translator (NAT), wherein the intermediate node is configured to receive data from the originating node, and forwarding the data based upon the

public IP address to thereby enable the NAT to transform the public IP address assigned to the terminating node into a private IP address associated with the terminating node, and thereafter forward the data from the NAT to the terminating node based upon the private IP address of the terminating node.

13. (Previously Presented) A system according to Claim 1, wherein the originating node comprises a mobile terminal or a fixed terminal, and wherein the mobile terminal or fixed terminal is configured to notify the terminating node of incoming data.

14. (Previously Presented) A system according to Claim 1, wherein the originating node or the intermediate node comprises a Session Initiation Protocol (SIP) client, and wherein the SIP client is configured to communicate with a SIP proxy to thereby trigger the SIP proxy to notify the terminating node of incoming data.

15. (Previously Presented) A system according to Claim 1 further comprising:

at least one of a network address translator (NAT) or a firewall (FW) located between the intermediate node and the terminating node,

wherein the originating node or the intermediate node is configured to communicate with the at least one of the NAT or FW to thereby trigger the at least one of the NAT or FW to notify the terminating node of incoming data.

16. (Previously Presented) A system according to Claim 15, wherein the originating node or the intermediate node is configured to communicate with the at least one of the NAT or FW to thereby enable the at least one of the NAT or FW to communicate with a network gateway support node to thereby trigger the network gateway support node to notify the terminating node of incoming data.

17. (Previously Presented) A system according to Claim 1, wherein the originating node or the intermediate node is configured to communicate with another network node to thereby trigger the other network node to notify the terminating node of incoming data.

18. (Previously Presented) A method comprising:

receiving a notification of incoming data at a terminating node from an originating node or an intermediate node located between the originating node and the terminating node; and

registering the terminating node with the intermediate node in response to receiving the notification at the terminating node to thereby enable Internet Protocol (IP) communication between the originating node and the terminating node via the intermediate node.

19. (Original) A method according to Claim 18, wherein notifying the terminating node comprises notifying the terminating node of incoming data further in accordance with a non-IP-based communication technique.

20. (Previously Presented) A method according to Claim 19, wherein notifying the terminating node comprises notifying the terminating node of incoming data further in accordance with at least one of oral communication, text messaging, radio frequency (RF) communication, short messaging service (SMS) communication, multimedia messaging service (MMS) communication, or instant messaging.

21. (Original) A method according to Claim 18, wherein notifying the terminating node comprises notifying the terminating node of incoming data further in accordance with at least one wireless communication technique.

22. (Original) A method according to Claim 18 further comprising:

communicating between the originating node and the terminating node, wherein notifying the terminating node and communicating between the originating node and terminating node occur in accordance with a plurality of different communication techniques.

23. (Previously Presented) A method according to Claim 18 further comprising:

requesting communication with the terminating node from the originating node via the intermediate node by sending a domain name service (DNS) query to at least one of a plurality of DNS servers to thereby trigger the at least one of a plurality of DNS servers to communicate with the intermediate node to thereby enable the intermediate node to notify the terminating node of incoming data.

24. (Previously Presented) A method according to Claim 23, wherein requesting communication comprises requesting communication with the terminating node from the originating node via the intermediate node by sending a DNS query to a first DNS server to thereby trigger a second DNS server to communicate with the intermediate node to thereby enable the intermediate node to notify the terminating node of incoming data, and wherein the second DNS server comprises the first DNS server or a DNS server different from the first DNS server.

25. (Original) A method according to Claim 18 further comprising:

establishing a tunnel between the intermediate node and the terminating node in response to registering the terminating node with the intermediate node; and

communicating between the originating node and the terminating node at least partially via the tunnel.

26. (Original) A method according to Claim 25, wherein registering the terminating node includes assigning a public IP address to the terminating node, and wherein communicating comprises sending data from the originating node to the terminating node based upon the public IP address assigned to the terminating node.

27. (Previously Presented) A method according to Claim 25, wherein establishing a tunnel comprises establishing a tunnel based upon a registration message from the terminating

node via at least one of a network address translator (NAT) or a firewall (FW) located between the intermediate node and the terminating node,

and wherein communicating comprises communicating between the originating node and the terminating node at least partially via the tunnel in a manner independent of the at least one of the NAT or the FW.

28. (Previously Presented) A method according to Claim 18, wherein registering the terminating node comprises registering the terminating node to thereby enable the intermediate node to create a registration entry that includes a public IP address assigned to the terminating node, and wherein the method further comprises:

communicating between the originating node and the terminating node via the intermediate node to thereby enable the intermediate node to operate as a proxy based upon the registration entry.

29. (Previously Presented) A method according to Claim 28, wherein the public IP address assigned to the terminating node comprises a public IP address assigned to the terminating node by a network address translator (NAT), and wherein communicating comprises:

receiving data from the originating node at the intermediate node; and

forwarding the data based upon the public IP address to thereby enable the NAT to transform the public IP address assigned to the terminating node into a private IP address associated with the terminating node, and thereafter forwarding the data from the NAT to the terminating node based upon the private IP address of the terminating node.

30. (Previously Presented) A method according to Claim 18, wherein the originating node comprises a mobile terminal or a fixed terminal, and wherein receiving a notification comprises receiving a notification from the mobile terminal or fixed terminal.

31. (Previously Presented) A method according to Claim 18, wherein the originating node or the intermediate node comprises a Session Initiation Protocol (SIP) client, and wherein

receiving a notification comprises receiving a notification from a SIP proxy in response to the SIP proxy being triggered by the SIP client to notify the terminating node of incoming data.

32. (Previously Presented) A method according to Claim 18, wherein receiving a notification comprises receiving a notification from at least one of a network address translator (NAT) or a firewall (FW) located between the intermediate node and the terminating node, and wherein receiving a notification comprises receiving a notification in response to the at least one of the NAT or FW being triggered by the originating node or the intermediate node to notify the terminating node of incoming data.

33. (Previously Presented) A method according to Claim 32, wherein receiving a notification comprises receiving a notification from a network gateway support node in response to the network gateway support node being triggered by at least one of the NAT or FW to notify the terminating node of incoming data.

34. (Previously Presented) A method according to Claim 18, wherein receiving a notification comprises receiving a notification from another network node in response to the other network node being triggered by the originating node or the intermediate node to notify the terminating node of incoming data.

35. (Previously Presented) An apparatus comprising:

a controller configured to receive a notification of incoming data from an originating node or an intermediate node located between the originating node and the apparatus, wherein the controller is also configured to register the apparatus with the intermediate node in response to receiving the notification to thereby enable Internet Protocol (IP) communication between the originating node and the apparatus via the intermediate node.

36. (Previously Presented) An apparatus according to Claim 35, wherein the controller is configured to receive the notification further in accordance with a non-IP-based communication technique.

37. (Previously Presented) An apparatus according to Claim 36, wherein the controller is configured to receive the notification further in accordance with at least one of text messaging, radio frequency (RF) communication, short messaging service (SMS) communication, multimedia messaging service (MMS) communication, or instant messaging.

38. (Previously Presented) An apparatus according to Claim 35, wherein the controller is configured to receive the notification further in accordance with at least one wireless communication technique.

39. (Previously Presented) An apparatus according to Claim 35, wherein the controller is further configured to communicate with the originating node, and wherein the controller is configured to receive the notification and communicate with the originating node in accordance with a plurality of different communication techniques.

40. (Previously Presented) An apparatus according to Claim 35, wherein the controller is configured to receive the notification in response to the originating node requesting communication with the apparatus via the intermediate node by sending a domain name service (DNS) query to at least one of a plurality of DNS servers to thereby trigger the at least one of a plurality of DNS servers to communicate with the intermediate node to thereby enable the intermediate node to send the notification to the apparatus.

41. (Previously Presented) An apparatus according to Claim 40, wherein the controller is configured to receive the notification in response to the originating node requesting communication comprises requesting communication with the terminating node via the intermediate node by sending the DNS query to a first DNS server to thereby trigger a second

DNS server to communicate with the intermediate node to thereby enable the intermediate node to notify the terminating node of incoming data, and wherein the second DNS server comprises the first DNS server or a DNS server different from the first DNS server.

42. (Previously Presented) An apparatus according to Claim 35, wherein the controller is configured to register the apparatus to thereby enable the intermediate node to establish a tunnel between the intermediate node and the apparatus in response to registering the apparatus with the intermediate node, and wherein the controller is configured to communicate with the originating node at least partially via the tunnel.

43. (Previously Presented) An apparatus according to Claim 42, wherein the controller is configured to register the apparatus to thereby enable the intermediate node to assign a public IP address to the apparatus, and wherein the controller is configured to receive data sent from the originating node to the apparatus based upon the public IP address assigned to the apparatus.

44. (Previously Presented) An apparatus according to Claim 42, wherein the controller is configured to send a registration message to the intermediate node via at least one of a network address translator (NAT) or a firewall (FW) located between the intermediate node and the apparatus to thereby register the apparatus, and wherein the controller is configured to communicate with the originating node at least partially via the tunnel in a manner independent of the at least one of the NAT or the FW.

45. (Previously Presented) An apparatus according to Claim 35, wherein the controller is configured to register the apparatus to thereby enable the intermediate node to create a registration entry that includes a public IP address assigned to the apparatus, and wherein the controller is configured to communicate with the originating node via the intermediate node to thereby enable the intermediate node to operate as a proxy based upon the registration entry.

46. (Previously Presented) An apparatus according to Claim 45, wherein the public IP address assigned to the apparatus comprises a public IP address assigned to the apparatus by a network address translator (NAT), and wherein the controller is configured to communicate with the originating node to thereby enable the intermediate node to receive data from the originating node, and forward the data based upon the public IP address to thereby enable the NAT to transform the public IP address assigned to the apparatus into a private IP address associated with the apparatus, and thereafter forward the data from the NAT to the controller based upon the private IP address of the apparatus.

47. (Previously Presented) An apparatus according to Claim 35, wherein the originating node comprises a mobile apparatus or a fixed apparatus, and wherein the controller is configured to receive the notification from the mobile apparatus or fixed apparatus.

48. (Previously Presented) An apparatus according to Claim 35, wherein the originating node or the intermediate node comprises a Session Initiation Protocol (SIP) client, and wherein the controller is configured to receive the notification from a SIP proxy in response to the SIP proxy being triggered by the SIP client to notify the apparatus of incoming data.

49. (Previously Presented) An apparatus according to Claim 35, wherein the controller is configured to receive the notification from at least one of a network address translator (NAT) or a firewall (FW) located between the intermediate node and the apparatus, and wherein the controller is configured to receive the notification in response to the at least one of the NAT or FW being triggered by the originating node or the intermediate node to notify the apparatus of incoming data.

50. (Previously Presented) An apparatus according to Claim 49, wherein the controller is configured to receive the notification from a network gateway support node in response to the network gateway support node being triggered by at least one of the NAT or FW to notify the apparatus of incoming data.

51. (Previously Presented) An apparatus according to Claim 35, wherein the controller is configured to receive the notification from another network node in response to the other network node being triggered by the originating node or the intermediate node to notify the apparatus of incoming data.

52. (Previously Presented) A system comprising:

a network address translator (NAT) located between an originating node and a terminating node, wherein the NAT is configured to receive a communication request from a network node, and in response to the connection request, notify the terminating node of incoming data to thereby enable the terminating node to register with an intermediate node located between the originating node and the NAT to thereby enable Internet Protocol (IP) communication between the originating node and the terminating node via the intermediate node.

53. (Previously Presented) A system according to Claim 52, wherein the NAT is configured to notify the terminating node via a network gateway support node of a network including the terminating node.

54. (Previously Presented) A system according to Claim 52, wherein the NAT is configured to receive the communication request from the originating node or the intermediate node.

55. (Previously Presented) A system according to Claim 52 further comprising:

an intermediate node configured to establish a tunnel with the terminating node in response to the terminating node registering with the intermediate node to thereby enable the originating node to communicate with the terminating node at least partially via the tunnel.

56. (Previously Presented) A system according to Claim 55, wherein the intermediate node is further configured to assign a public IP address to the terminating node to thereby enable

the originating node to communicate with the terminating node by sending data based upon the public IP address of the terminating node assigned by the intermediate node.

57. (Previously Presented) A system according to Claim 55, wherein the intermediate node is configured to establish the tunnel based upon a registration message from the terminating node via the NAT, and wherein the intermediate node is configured to establish a tunnel with the terminating node to permit the originating node to communicate with the terminating node at least partially via the tunnel in a manner independent of the NAT.

58. (Previously Presented) A system according to Claim 54 further comprising:

an intermediate node configured to receive a registration message from the terminating node, and thereafter create a registration entry that includes a public IP address assigned to the terminating node, wherein the intermediate node is configured to operate as a proxy during communication between the originating node and the terminating node based upon the registration entry.

59. (Previously Presented) An apparatus comprising;

a receiving means for receiving a notification of incoming data from an originating node or an intermediate node located between the originating node and the apparatus; and

a registering means for registering the apparatus with the intermediate node in response to the receiving means receiving the notification to thereby enable Internet Protocol (IP) communication between the originating node and the apparatus via the intermediate node.

9. ***Evidence Appendix.***

None.

10. ***Related Proceedings Appendix.***

None.

CONCLUSION

For at least the foregoing reasons, Appellant respectfully requests that the rejections be reversed.

Respectfully submitted,

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